

REMARKS

The Applicant respectfully requests further examination and reconsideration in view of the arguments set forth fully below. Claims 1-44 were previously pending in this application. Within the Office Action, claims 1-44 have been rejected.

Double Patenting

Within the Office Action, claims 1-44 have been provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-38 of co-pending Application No. 09/801,140. The Applicant is filing a terminal disclaimer herewith to obviate this double patenting rejection over Application No. 09/801,140.

Specification

Within the Office Action, the Applicant is requested to submit the status of all related applications referenced within the specification. The status of the referenced applications is pending. By the above amendments, the status, filing data and serial number of each referenced co-pending application is included within the specification.

Rejections under 35 U.S.C. §103(a)

Claims 1-5, 7-16, 18-27, 29-39, and 41-44 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,098,066 issued to Snow et al. (hereafter "Snow") in view of U.S. Patent No. 6,292,796 issued to Drucker et al. (hereafter "Drucker"). The Applicant respectfully traverses this rejection for the following reasons.

Snow teaches formatting a searchable database into a tree structure of directories. Each directory includes a document vector for each document within the directory. Each document vector is created by splitting the document into terms and associating a weight to each term based on the frequency with which the term is found in the document. In other words, each document is tagged with a list of terms, and their weights, found within the document. The tags are subsequently searched during keyword searches. Since most words in the document are tagged as "terms", the document vector does not effectively reduce the number of searchable keywords within the document. Snow then performs an adapted version of a keyword search. More specifically, Snow teaches categorizing documents, and then performing a keyword search by

first specifying the category in which the keyword search is to be performed and then performing the keyword search within that category.

Further, Snow does not teach how a user subsequently searches the documents for specific values of predetermined parameters, for example using a parametric search. Snow teaches searching documents based on a keyword search of the indexed (tagged) terms. A keyword search is not the same as a parametric search. The system of Snow is not designed to determine and tag documents according to their attribute-value pairs (parameter field names and their values), and to then search for documents according to specified values of predetermined parameters.

Drucker teaches an access mechanism that searches current and past literature and selects some or all of the literature for a user, based on criteria established for the user. In a user setup 404, user preferences and profile information are established for a user. The user may also specify search preferences such as the type of literature that is to be searched and the time frame of the search. Additional search criteria is specified using a record link 406, a standing search 408, and an ad hoc access 410. An access mechanism 402 is used to perform filtering after a search is completed. A search is performed on the databases using search criteria obtained from values established in user setup 404, record link 406, standing search 408, and ad hoc access 410. Filtering is then performed on the results of the search query. The search query searches keywords associated with an article, an article's title and/or an article's abstract (Drucker, col. 9, lines 30-32). The user can be notified when a search yields results. In summary, Drucker teaches a keyword search methodology where the search results can be sent to a user using a conventional push technology. However, Drucker does not teach a proactive notification of targeted information, where the information is formatted in a searchable directory tree structure and the information is defined within the directory tree structure according to a navigation path and set parameters, as taught by the present invention.

The present invention includes categorizing and parameterizing individual data items within a directory tree structure. Discrete data items can be located by defining a navigation path through the directory tree structure to a node associated with the discrete data item. Further, one or more parameters are associated with each discrete data item corresponding to a particular node. These one or more parameters are not keywords, or terms, as in Snow, but instead, each parameter defines a generic field (parameter field) to which a specific value corresponding to the discrete data item is associated. For example, at a "real estate" node, a parameter field name can be "number of rooms" or "price". The parameter field name is different than the actual value

eventually associated with the parameter field name in relation to a specific data item. Continuing the example, homes for sale may be described in property fliers. A generic property flier can include many parameters used to describe the home for sale, where each parameter is identified by its parameter field name. The generic property flier can include parameters with parameter field names such as "number of bedrooms", "number of bathrooms", "square footage", "address", and "price". A particular data item associated with the real estate node can be a property flier for a specific home for sale. The parameter with parameter field name "number of bedrooms" has a value of "3", in this case, and so on for each of the parameters associated with the property flier. In this manner, it is clear that the value of each parameter, which is specific to a particular data item, is different than the parameter field name of each parameter, which generically defines the type of the parameter.

Both Snow and Drucker teach searching documents based on a keyword search. Neither Snow, Drucker, nor their combination teach determining and tagging documents according to their attribute-value pairs (parameter field names and their values), and to then search for documents within a directory tree structure according to specified values of the predetermined parameters.

Within the Office Action, it is stated that Drucker teaches setting one or more search parameters corresponding to the set of parameters of a particular node. To support this assertion, it is stated that Drucker teaches a user setup which allows the user to specify search parameters, and that these parameters are saved for later modification. The Applicant respectfully disagrees with this conclusion. Drucker teaches that the user can specify search preferences such as the type of literature that is to be searched and the time frame of the search (Drucker, col. 6, lines 63-65). As described above, these search preferences are used to perform a search of the databases, and filtering is then performed on the search results. In this manner, the search parameters specified by the user preferences are applied to the entire database. Drucker does not teach accessing a particular portion of the database, and then performing a search using the search parameters. As such, Drucker does not teach accessing a particular node within a directory tree structure, and then performing a parametric search by setting one or more search parameters corresponding to the set of parameters of the accessed particular node.

Further, there is no hint, teaching or suggestion within either Snow or Drucker to indicate a two-phase search where a particular node within a directory tree structure is first accessed, and then a parametric search is performed on the data corresponding to the particular node. Both Snow and Drucker teach a keyword search methodology that initiates a search on the entire

database, that is from the top level of any corresponding indexing means. Neither Snow nor Drucker teach a secondary searching means that applies a parametric search methodology to a previously searched result, that is applying a parametric search to the previously accessed particular node within the directory node structure.

Claim 1 is directed to a method of accessing information within a directory tree structure. The method of Claim 1 comprises the steps of formatting a searchable database into the directory tree structure, wherein the directory tree structure includes nodes comprising a collection of related data and branches comprising links between the nodes, further wherein each specific node provides a corresponding set of parameters by which each related item of data corresponding to the specific node is defined by initializing a value of each parameter for each related item of data, accessing a particular node within the directory tree structure, setting one or more search parameters corresponding to the set of parameters of the particular node, and performing a parametric search using the one or more set search parameters corresponding to the specific node to generate one or more matching discrete data items, wherein each matching item corresponds to related items of data of the particular node. As discussed above, neither Snow, Drucker nor their combination teach searching for documents within a directory tree structure according to specified values of predetermined parameters. Further, neither Snow, Drucker, nor their combination teach a two-phase search where a particular node within a directory tree structure is first accessed, and then a parametric search is performed on the data corresponding to the particular node. For at least these reasons the independent claim 1 is allowable over the teachings of Snow, Drucker, and their combination.

Claims 2-5 and 7-11 depend on the independent claim 1. As described above, the independent claim 1 is allowable over the teachings of Snow, Drucker, and their combination. Accordingly, claims 2-5 and 7-11 are also allowable as being dependent on an allowable base claim.

Claim 12 is directed to a research system for accessing information within a directory tree structure. The research system of Claim 12 comprises means for formatting a searchable database into the directory tree structure, wherein the directory tree structure includes nodes comprising a collection of related data and branches comprising links between the nodes, further wherein each specific node provides a corresponding set of parameters by which each related item of data corresponding to the specific node is defined by initializing a value of each parameter for each related item of data, means for accessing a particular node within the directory tree structure, means for setting one or more search parameters corresponding to the set

of parameters of the particular node, and means for performing a parametric search using the one or more set search parameters corresponding to the specific node to generate one or more matching discrete data items, wherein each matching item corresponds to related items of data of the particular node. As discussed above, neither Snow, Drucker nor their combination teach searching for documents within a directory tree structure according to specified values of predetermined parameters. Further, neither Snow, Drucker, nor their combination teach a two-phase search where a particular node within a directory tree structure is first accessed, and then a parametric search is performed on the data corresponding to the particular node. For at least these reasons the independent claim 12 is allowable over the teachings of Snow, Drucker, and their combination.

Claims 13-16 and 18-22 depend on the independent claim 12. As described above, the independent claim 12 is allowable over the teachings of Snow, Drucker, and their combination. Accordingly, claims 13-16 and 18-22 are also allowable as being dependent on an allowable base claim.

Claim 23 is directed to a research system for accessing information within a directory tree structure. The research system of Claim 23 comprises a research server configured to format a searchable database into the directory tree structure, wherein the directory tree structure includes nodes comprising a collection of related data and branches comprising links between the nodes, further wherein each specific node provides a corresponding set of parameters by which each related item of data corresponding to the specific node is defined by initializing a value of each parameter for each related item of data, to access a particular node within the directory tree structure, to set one or more search parameters corresponding to the set of parameters of the particular node, and to perform a parametric search using the one or more set search parameters corresponding to the specific node to generate one or more matching discrete data items, wherein each matching item corresponds to related items of data of the particular node. As discussed above, neither Snow, Drucker nor their combination teach searching for documents within a directory tree structure according to specified values of predetermined parameters. Further, neither Snow, Drucker, nor their combination teach a two-phase search where a particular node within a directory tree structure is first accessed, and then a parametric search is performed on the data corresponding to the particular node. For at least these reasons the independent claim 23 is allowable over the teachings of Snow, Drucker, and their combination.

Claims 24-27 and 29-34 depend on the independent claim 23. As described above, the independent claim 23 is allowable over the teachings of Snow, Drucker, and their combination. Accordingly, claims 24-27 and 29-34 are also allowable as being dependent on an allowable base claim.

Claim 35 is directed to a network of devices for accessing information within a directory tree structure. The network of devices of Claim 35 comprises one or more computer systems configured to establish a connection with other systems, and a research server coupled to the one or more computer systems to format a searchable database into the directory tree structure, wherein the directory tree structure includes nodes comprising a collection of related data and branches comprising links between the nodes, further wherein each specific node provides a corresponding set of parameters by which each related item of data corresponding to the specific node is defined by initializing a value of each parameter for each related item of data, to access a particular node within the directory tree structure, to set one or more search parameters corresponding to the set of parameters of the particular node, and to perform a parametric search using the one or more set search parameters corresponding to the specific node to generate one or more matching discrete data items, wherein each matching item corresponds to related items of data of the particular node. As discussed above, neither Snow, Drucker nor their combination teach searching for documents within a directory tree structure according to specified values of predetermined parameters. Further, neither Snow, Drucker, nor their combination teach a two-phase search where a particular node within a directory tree structure is first accessed, and then a parametric search is performed on the data corresponding to the particular node. For at least these reasons the independent claim 35 is allowable over the teachings of Snow, Drucker, and their combination.

Claims 36-39 and 41-44 depend on the independent claim 35. As described above, the independent claim 35 is allowable over the teachings of Snow, Drucker, and their combination. Accordingly, claims 36-39 and 41-44 are also allowable as being dependent on an allowable base claim.

Within the Office Action, claims 6, 17, 28, and 40 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Snow in view of Drucker and further in view of U.S. Patent No. 6,327,588 issued to Danish et al. The Applicant respectfully traverses this rejection.

Claim 6 is dependent on the independent claim 1. Claim 17 is dependent on the independent claim 12. Claim 28 is dependent on the independent claim 23. Claim 40 is dependent on the independent claim 35. As discussed above, the independent claims 1, 12, 23, and 35 are each allowable over the teachings of Snow, Drucker and their combination. Accordingly, claims 6, 17, 28, and 40 are also each allowable as being dependent on an allowable base claim.

For the reasons given above, Applicant respectfully submits that claims 1-44 are now in a condition for allowance, and allowance at an early date would be appreciated. Should the Examiner have any questions or comments, he/she is encouraged to call the undersigned attorney at (408) 530-9700.

Respectfully submitted,
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CERTIFICATE OF MAILING (37 CFR § 1.8(a))

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